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METEOROLOGICAL DATA REPORT

19304D GORS
Missile Nos. 1075, 1084, 1086
Round Nos. V-76, V-77, V-78
18 October 1979

11

White Sands Meteorological Team

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 19304D GSRS, Missile Numbers 1075, 1084, 1086, Round Numbers V-76, V-77, V-78 are presented in tabular form.			

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INTRODUCTION

19304D GSRS, Missile Numbers 1075, 1084, 1086, Round Numbers V-76, V-77 and V-78, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0950, 0950:03, 0950:08 MDT. 18 October 1979. The scheduled launch times were 0945, 0945:02.5, 0945:05 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m³), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

SITE AND ALTITUDE

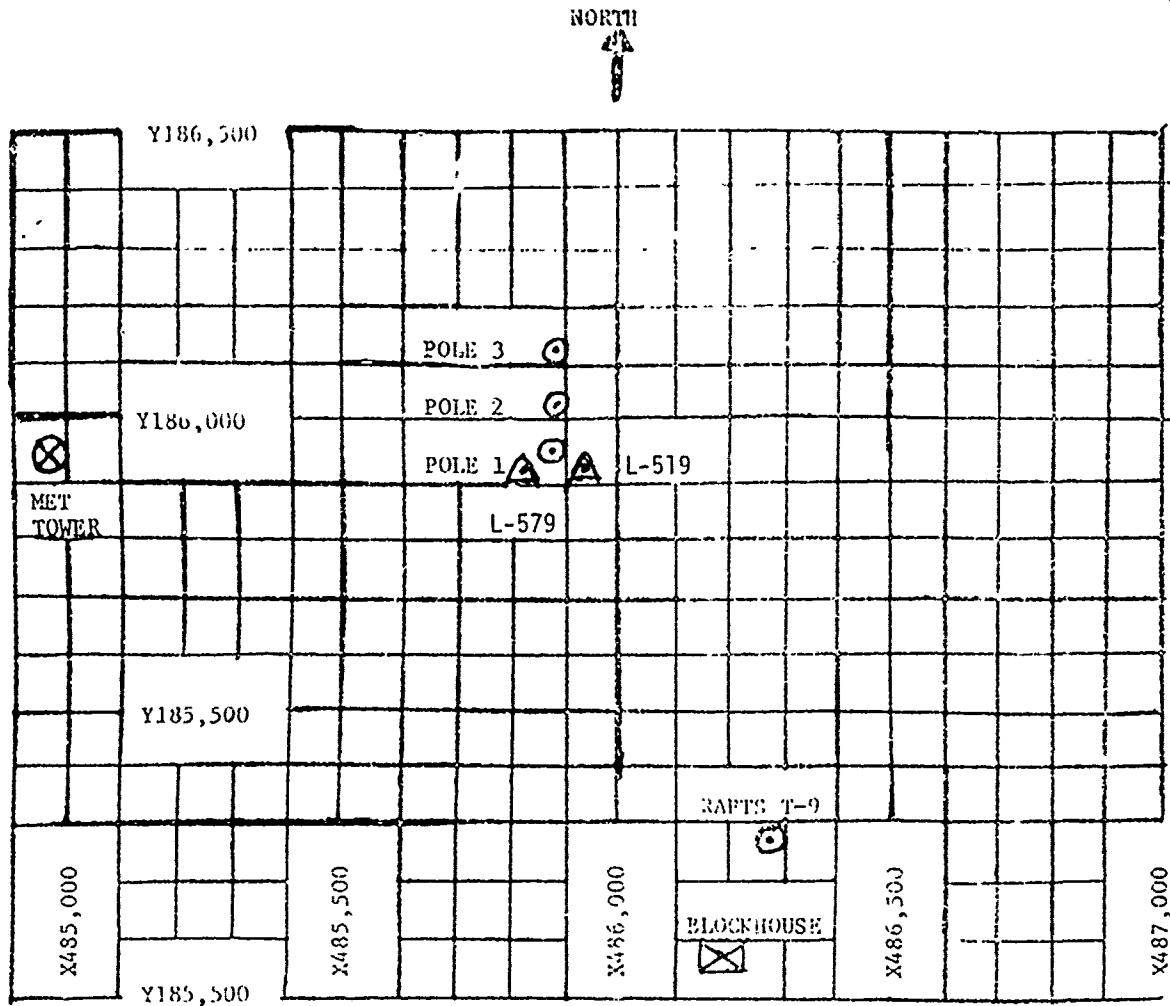
LC-33	2Km
NICK	2Km

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 84,000 feet in 500-feet increments.

SITE AND TIME

SMR 0845 MST

Accession For	
NTIS GAMI	
DEC TAB	
Unannounced	
Justification	
By	
Distribution/	
Availability Codes	
Dist	Available or special
A	23 DP



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft., 44 ft., 102 ft., and 202 ft with P/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with P/A recorders.
 - (a) Pole #1 = 38.7 ft
 - (b) Pole #2 = 53.0 ft
 - (c) Pole #3 = 83.6 ft
3. RAFTS T-9 Radar Automatic Pile-Balloon Tracking System T-9 Radar.

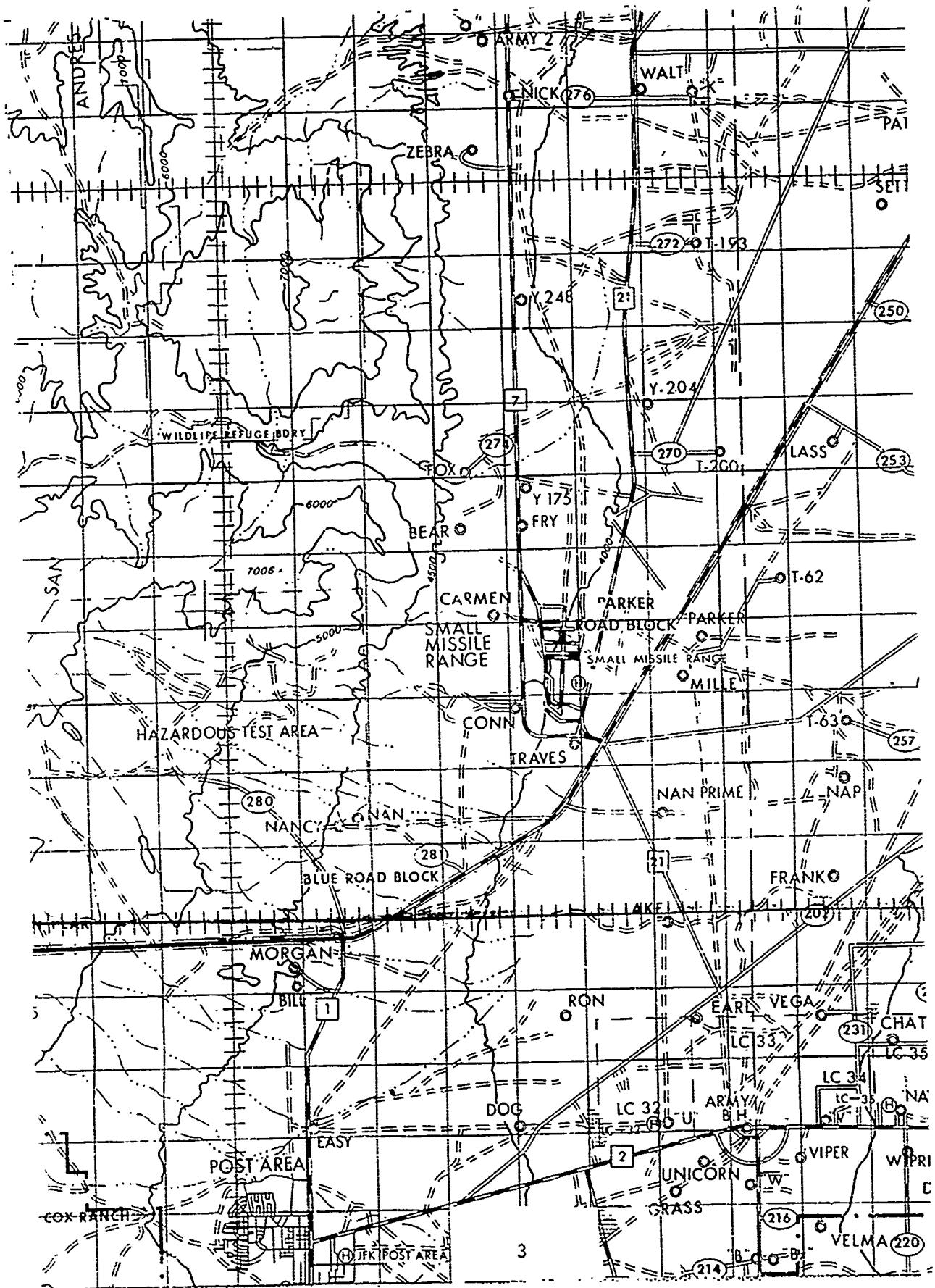


TABLE 1. Surface Observations taken at 0952 MDT,
18 October 1979, at LC-33, 19304D GSRS,
Missile Numbers 1075, 1084, 1086, Round
Numbers V-76, V-77, V-78.

ELEVATION	3977.30	FT/MSL
PRESSURE	880.4	MBS
TEMPERATURE	19.5	°C
RELATIVE HUMIDITY	64	%
DEW POINT	12.5	°C
DENSITY	1041	GM/M ³
WIND SPEED	CALM	KTS
WIND DIRECTION		DEGREES
CLOUD COVER	5	Sc

LC-33' FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30		CALM	-30	163	01	-30	170	01
-20		CALM	-20	163	01	-20	158	01
-10		CALM	-10	163	02	-10	157	01
0.0		CALM	0.0	163	02	0.0	156	01
+10		CALM	+10	156	02	+10	135	01

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft AGL

TABLE 2

TYPE 19304D GSRS MISSILE NOS. 1075, 1084, 1086 ROJND NOS. V-76, V-77, V-78

LAUNCHED FROM LC-33 DATE 18 October 1979 TIMES 0952:01, 0952:03,

0952:08 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1 12 Feet			LEVEL #2 62 Feet		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30		CALM	-30		CALM
-20		CALM	-20		CALM
-10		CALM	-10	247	01
0.0	220	02	0.0	248	02
+10	220	01	+10	253	02
LEVEL #3 102 Feet			LEVEL #4 202 Feet		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	239	01	-30		CALM
-20		CALM	-20		CALM
-10		CALM	-10		CALM
0.0		CALM	0.0		CALM
+10		CALM	+10		CALM

WTSM COORDINATES: X484,982.64 Y185,057.73 H3983.00 (base)

TABLE 3

TYPE 19304D GSRS MISSILE NOS. 1075, 1084, 1085 ROUND NOS. V-76, V-77, V-78

LAUNCHED FROM LC-33 DATE 18 October 1979 TIMES 0952:01, 0952:03,

0952:08

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 18 October 1979 TIME 0952 MDT
TRACKER COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30
MISSILE TYPE LC-33 MISSILE NOS. 1075, 1084, 1086 ROUND NOS. V-76, V-77, V-78
MISSILE LAUNCHED FROM LC-33 DATE 18 October 1979 TIMES. 0952:01, 0952:03,
0952:08 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM
90		CALM
150	296	05
210	301	05
270	286	07
330	291	10
390	290	10
500	290	13
650	289	14
800	274	14
950	253	15
1150	255	15
1350	250	17
1550	249	13
1750	240	15
2000	251	18

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM NICK SITE DATE 18 October 1979 TIME 0952 MDT
TRACKER COORDINATES (WSTM) X= 470,734.56 Y= 255,775.64 H= 4126.57
MISSILE TYPE 19304D GSRS MISSILE NO S. 1075, 1084, 1086 ROUND NO S. V-76, V-77, V-78
MISSILE LAUNCHED FROM LC-33 DATE 18 October 1979 TIME S. 0952:01, 0952:03,
0952:08 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM
90	MISG	MISG
150	077	06
210	158	02
270	179	07
330	157	06
390	110	09
500	130	06
650	175	07
800	182	09
950	174	11
1150	186	12
1350	196	11
1550	184	09
1750	198	09
2000	202	10

STATION ALTITUDE 3997.30 FEET MSL
28 OCT. 79 0645 HRS MST
ASCLINING 1.0. 355

SIGNIFICANT LEVEL DATA
291000355
S IN R

GEODETIC COORDINATES
32°48'34" LAT DEG
106°42'30" LON DEG

TABLE 6

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET mSL	TEMPERATURE DEGREES CENIGRADE	AIR DEWPOINT DEGREES CENIGRADE	REL. HUM. PERCENT
379.0	3997.3	16.0	7.3	54.0
361.6	4560.0	20.1	2.9	52.0
357.0	4943.4	19.9	-1.4	44.0
318.0	9616.0	8.1	-7.6	32.0
700.0	10392.7	6.9	-15.7	18.0
690.6	10667.6	7.1	-17.7	15.0
636.6	12549.1	2.9	-20.4	16.0
593.4	14701.7	-2.1	-13.9	40.0
543.4	19978.2	-7.6	-20.7	34.0
500.0	19095.1	-16.9	-29.9	19.0
464.2	210961.1	-14.1	-32.1	20.0
434.2	22616.2	-18.2	-26.9	46.0
412.4	23874.5	-21.4	-27.2	59.0
400.0	24612.9	-23.2	-26.9	59.0
344.2	28175.5	-31.3	-34.9	76.0
300.0	31333.0	-36.6	-42.2	98.0
276.8	33134.1	-43.7	-49.0	55.0
250.0	35335.7	-50.1		
222.9	37526.4	-55.2		
200.0	40070.4	-56.7		
199.0	41247.4	-58.5		
174.3	42370.7	-57.2		
159.0	46024.9	-62.1		
134.0	46301.2	-66.3		
123.6	59012.6	-66.3		
112.4	21737.6	-72.3		
102.6	53587.0	-75.8		
100.0	54101.1	-66.0		
81.0	55357.5	-62.4		
70.0	61291.5	-68.1		
64.0	62670.1	-67.6		
57.5	63232.3	-61.1		
50.0	68100.1	-61.1		
37.0	74350.1	-54.3		
30.0	78519.4	-54.9		
23.4	84096.0	-53.0		

STATION ALTITUDE 3,997.30 FEET
18 OCT. 79 0845 HRS MST
ASCLATION 140. 555

UPPER AIR WIND
2,100,000's

TABLE 7

NOMENCLATURE	PRESSURE IN MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND IN FEET PER SECOND	IND. DATA		INDEX OF REFRACTION
					DIRECTIV. DEGREES (1)	SPEED KNOTS	
ATMOSPHERIC PRESSURE IN MILLIBARS	879.0	16.0	7.5	54.0	1052.2	664.6	1.000261
ATMOSPHERIC PRESSURE IN MILLIBARS	3997.3	16.0	7.5	53.9	1052.0	664.6	1.000260
ATMOSPHERIC PRESSURE IN MILLIBARS	879.9	16.6	7.5	54.3	1023.5	667.9	1.000263
ATMOSPHERIC PRESSURE IN MILLIBARS	893.4	19.7	3.6	24.1	1000.4	667.6	1.000249
ATMOSPHERIC PRESSURE IN MILLIBARS	846.3	19.8	-1.3	25.0	922.7	666.1	1.000245
ATMOSPHERIC PRESSURE IN MILLIBARS	550.0	18.5	-1.9	25.8	979.2	664.0	1.000241
ATMOSPHERIC PRESSURE IN MILLIBARS	833.1	17.2	-2.5	26.7	960.0	663.2	1.000237
ATMOSPHERIC PRESSURE IN MILLIBARS	815.2	16.0	-3.2	27.5	952.9	661.7	1.000233
ATMOSPHERIC PRESSURE IN MILLIBARS	803.5	14.7	-3.3	28.4	940.1	660.2	1.000230
ATMOSPHERIC PRESSURE IN MILLIBARS	789.1	15.4	-4.5	29.2	927.4	658.7	1.000226
ATMOSPHERIC PRESSURE IN MILLIBARS	775.0	12.2	-5.2	30.1	914.9	657.3	1.000222
ATMOSPHERIC PRESSURE IN MILLIBARS	761.2	10.9	-5.9	30.9	902.0	655.6	1.000219
ATMOSPHERIC PRESSURE IN MILLIBARS	747.5	9.7	-6.6	31.3	890.5	654.3	1.000215
ATMOSPHERIC PRESSURE IN MILLIBARS	734.2	8.4	-7.4	31.3	877.7	653.0	1.000208
ATMOSPHERIC PRESSURE IN MILLIBARS	721.0	7.4	-11.7	24.2	865.3	652.4	1.000204
ATMOSPHERIC PRESSURE IN MILLIBARS	707.9	7.0	-16.8	16.4	849.1	651.7	1.000199
ATMOSPHERIC PRESSURE IN MILLIBARS	694.9	6.5	-13.1	15.2	836.3	650.6	1.000195
ATMOSPHERIC PRESSURE IN MILLIBARS	682.1	6.5	-16.7	15.4	823.7	649.4	1.000191
ATMOSPHERIC PRESSURE IN MILLIBARS	670.5	5.5	-19.4	15.6	811.5	648.3	1.000187
ATMOSPHERIC PRESSURE IN MILLIBARS	658.9	4.5	-20.0	15.8	795.3	647.0	1.000183
ATMOSPHERIC PRESSURE IN MILLIBARS	647.3	3.6	-19.4	18.0	783.0	645.5	1.000179
ATMOSPHERIC PRESSURE IN MILLIBARS	635.0	2.5	-16.9	24.4	770.9	644.0	1.000175
ATMOSPHERIC PRESSURE IN MILLIBARS	623.1	1.1	-15.5	30.9	760.0	642.4	1.000171
ATMOSPHERIC PRESSURE IN MILLIBARS	611.0	0.0	-1.2	37.4	753.0	640.9	1.000167
ATMOSPHERIC PRESSURE IN MILLIBARS	609.4	-1.6	-14.2	64.0	743.9	639.5	1.000163
ATMOSPHERIC PRESSURE IN MILLIBARS	598.0	-2.6	-14.7	39.2	735.1	638.0	1.000159
ATMOSPHERIC PRESSURE IN MILLIBARS	586.6	-4.0	-16.2	57.9	722.4	636.5	1.000155
ATMOSPHERIC PRESSURE IN MILLIBARS	575.4	-4.0	-17.7	36.6	711.6	635.1	1.000151
ATMOSPHERIC PRESSURE IN MILLIBARS	564.3	-5.2	-19.2	35.8	700.0	634.1	1.000147
ATMOSPHERIC PRESSURE IN MILLIBARS	553.5	-6.4	-29.8	19.7	688.3	633.1	1.000143
ATMOSPHERIC PRESSURE IN MILLIBARS	542.9	-7.6	-22.7	30.3	677.2	632.2	1.000139
ATMOSPHERIC PRESSURE IN MILLIBARS	532.4	-8.4	-24.8	26.8	660.0	631.2	1.000135
ATMOSPHERIC PRESSURE IN MILLIBARS	522.0	-9.2	-27.0	23.2	650.1	629.5	1.000131
ATMOSPHERIC PRESSURE IN MILLIBARS	511.8	-10.0	-29.4	19.7	645.1	628.5	1.000127
ATMOSPHERIC PRESSURE IN MILLIBARS	501.9	-10.4	-30.4	19.2	644.0	629.1	1.000123
ATMOSPHERIC PRESSURE IN MILLIBARS	492.0	-11.6	-31.0	19.5	635.3	628.1	1.000119
ATMOSPHERIC PRESSURE IN MILLIBARS	482.3	-12.5	-31.5	19.8	623.9	627.0	1.000115
ATMOSPHERIC PRESSURE IN MILLIBARS	472.8	-13.3	-31.9	20.6	613.7	625.5	1.000111
ATMOSPHERIC PRESSURE IN MILLIBARS	463.5	-14.2	-29.6	28.5	604.5	624.1	1.000107
ATMOSPHERIC PRESSURE IN MILLIBARS	454.2	-15.4	-16.7	28.1	595.1	622.9	1.000103
ATMOSPHERIC PRESSURE IN MILLIBARS	445.0	-16.7	-17.9	27.1	585.3	621.0	1.000100
ATMOSPHERIC PRESSURE IN MILLIBARS	436.2	-19.2	-26.9	42.7	575.9	619.2	1.000097
ATMOSPHERIC PRESSURE IN MILLIBARS	427.4	-19.2	-26.9	42.7	565.7	613.7	1.000094
ATMOSPHERIC PRESSURE IN MILLIBARS	419.0	-19.2	-26.9	42.7	556.5	612.7	1.000091
ATMOSPHERIC PRESSURE IN MILLIBARS	410.0	-19.2	-26.9	42.7	547.3	611.7	1.000088
ATMOSPHERIC PRESSURE IN MILLIBARS	401.0	-19.2	-26.9	42.7	538.1	610.7	1.000085
ATMOSPHERIC PRESSURE IN MILLIBARS	392.0	-19.2	-26.9	42.7	528.9	609.7	1.000082
ATMOSPHERIC PRESSURE IN MILLIBARS	383.0	-19.2	-26.9	42.7	519.7	608.7	1.000079
ATMOSPHERIC PRESSURE IN MILLIBARS	374.0	-19.2	-26.9	42.7	510.5	607.7	1.000076
ATMOSPHERIC PRESSURE IN MILLIBARS	365.0	-19.2	-26.9	42.7	501.3	606.7	1.000073
ATMOSPHERIC PRESSURE IN MILLIBARS	356.0	-19.2	-26.9	42.7	492.1	605.7	1.000070
ATMOSPHERIC PRESSURE IN MILLIBARS	347.0	-19.2	-26.9	42.7	482.9	604.7	1.000067
ATMOSPHERIC PRESSURE IN MILLIBARS	338.0	-19.2	-26.9	42.7	473.7	603.7	1.000064
ATMOSPHERIC PRESSURE IN MILLIBARS	329.0	-19.2	-26.9	42.7	464.5	602.7	1.000061
ATMOSPHERIC PRESSURE IN MILLIBARS	320.0	-19.2	-26.9	42.7	455.3	601.7	1.000058
ATMOSPHERIC PRESSURE IN MILLIBARS	311.0	-19.2	-26.9	42.7	446.1	600.7	1.000055
ATMOSPHERIC PRESSURE IN MILLIBARS	302.0	-19.2	-26.9	42.7	436.9	599.7	1.000052
ATMOSPHERIC PRESSURE IN MILLIBARS	293.0	-19.2	-26.9	42.7	427.7	598.7	1.000049
ATMOSPHERIC PRESSURE IN MILLIBARS	284.0	-19.2	-26.9	42.7	418.5	597.7	1.000046
ATMOSPHERIC PRESSURE IN MILLIBARS	275.0	-19.2	-26.9	42.7	409.3	596.7	1.000043
ATMOSPHERIC PRESSURE IN MILLIBARS	266.0	-19.2	-26.9	42.7	399.1	595.7	1.000040
ATMOSPHERIC PRESSURE IN MILLIBARS	257.0	-19.2	-26.9	42.7	389.9	594.7	1.000037
ATMOSPHERIC PRESSURE IN MILLIBARS	248.0	-19.2	-26.9	42.7	380.7	593.7	1.000034
ATMOSPHERIC PRESSURE IN MILLIBARS	239.0	-19.2	-26.9	42.7	370.5	592.7	1.000031
ATMOSPHERIC PRESSURE IN MILLIBARS	230.0	-19.2	-26.9	42.7	361.3	591.7	1.000028
ATMOSPHERIC PRESSURE IN MILLIBARS	221.0	-19.2	-26.9	42.7	351.1	590.7	1.000025
ATMOSPHERIC PRESSURE IN MILLIBARS	212.0	-19.2	-26.9	42.7	341.9	589.7	1.000022
ATMOSPHERIC PRESSURE IN MILLIBARS	203.0	-19.2	-26.9	42.7	332.7	588.7	1.000019
ATMOSPHERIC PRESSURE IN MILLIBARS	194.0	-19.2	-26.9	42.7	323.5	587.7	1.000016
ATMOSPHERIC PRESSURE IN MILLIBARS	185.0	-19.2	-26.9	42.7	314.3	586.7	1.000013
ATMOSPHERIC PRESSURE IN MILLIBARS	176.0	-19.2	-26.9	42.7	305.1	585.7	1.000010
ATMOSPHERIC PRESSURE IN MILLIBARS	167.0	-19.2	-26.9	42.7	295.9	584.7	1.000007
ATMOSPHERIC PRESSURE IN MILLIBARS	158.0	-19.2	-26.9	42.7	286.7	583.7	1.000004
ATMOSPHERIC PRESSURE IN MILLIBARS	149.0	-19.2	-26.9	42.7	277.5	582.7	1.000001
ATMOSPHERIC PRESSURE IN MILLIBARS	140.0	-19.2	-26.9	42.7	268.3	581.7	-0.999998

STATION ALTITUDE 3497.30 FEET MSL
18 OCT. 79 0845 HRS MST
ASCENSION NO. 455

UPPER AIR DATA
2100 UC333
S M R

TABLE 7 (CONT)

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WEIGHT. SIGHT OF GN/CUSIC SOUND METER	WIND DATA DEGREES (T), KNOTS	WIND DATA DEGREES (D), KNOTS	INDEX OF REFRACTION
2350.0	410.8	-20.4	-27.1	55.1	577.0	619.5	244.5
2403.3	410.5	-21.7	-27.5	59.0	560.1	617.9	244.7
2453.0	401.9	-22.9	-28.7	59.0	559.2	610.4	243.9
2500.0	393.5	-24.1	-29.6	60.2	550.1	610.0	242.5
2550.0	385.0	-25.2	-30.4	61.7	541.1	612.0	241.4
2600.0	377.3	-26.4	-31.2	63.3	532.2	612.2	240.5
2650.0	369.4	-27.5	-32.0	64.8	523.0	610.7	239.7
2700.0	361.7	-28.6	-32.9	66.4	515.1	609.3	238.9
2750.0	354.1	-29.8	-33.8	67.9	506.7	607.9	238.0
2800.0	346.8	-30.9	-34.6	69.5	496.5	606.5	238.6
2850.0	339.4	-32.1	-35.7	69.8	490.2	605.0	239.0
2900.0	332.1	-33.2	-36.6	69.5	452.0	603.5	240.0
2950.0	324.9	-34.4	-39.0	69.2	473.9	602.1	241.0
3000.0	317.9	-35.5	-39.2	68.8	460.0	600.0	242.1
3050.0	311.1	-36.7	-40.3	68.5	450.0	599.1	243.3
3100.0	304.4	-37.8	-41.5	68.2	456.3	597.7	244.2
3150.0	297.8	-39.1	-42.9	66.8	445.1	590.1	245.3
3200.0	291.2	-40.5	-44.7	63.2	435.9	584.3	246.3
3250.0	284.8	-41.9	-46.6	59.6	426.9	584.5	247.7
3300.0	278.5	-43.3	-48.5	56.0	426.0	580.6	248.2
3350.0	272.2	-44.8	-51.3	45.9**	415.1	580.3	249.2
3400.0	266.3	-46.2	-55.4	55.0**	405.3	580.9	249.1
3450.0	260.0	-47.6	-59.3	21.2**	401.6	580.5	249.9
3500.0	253.4	-49.1	-68.0	8.6**	395.1	580.2	249.6
3550.0	246.3	-50.4			386.3	581.4	249.2
3600.0	242.6	-51.4			381.1	580.1	247.3
3650.0	235.9	-52.5			374.0	578.7	247.2
3700.0	231.4	-53.5			367.0	577.4	246.2
3750.0	223.0	-54.5			360.2	579.0	245.0
3800.0	219.3	-55.3			355.0	575.0	243.9
3850.0	215.6	-55.7			345.5	574.5	243.0
3900.0	211.5	-56.0			337.5	574.1	242.2
3950.0	205.5	-56.3			330.2	573.7	241.4
4000.0	200.7	-56.7			324.9	573.2	241.6
4050.0	195.9	-57.4			316.3	572.3	241.3
4100.0	191.3	-58.1			309.9	571.3	241.6
4150.0	186.7	-58.3			302.7	571.0	242.7
4200.0	182.5	-57.9			295.0	571.0	243.7
4250.0	177.9	-57.5			287.5	572.1	244.5
4300.0	173.7	-57.4			280.5	572.2	245.3

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
16 OCT. 79 0845 IRS RST
ASCENSION NO. 355

UPPER AIR DATA
231000Z355
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TABLE 7 (CONT)

GEOMETRIC ALTITUDE IN FEET	PRESSURE IN MILLIBARS	TEMPERATURE IN DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY IN CUBIC METERS KNOBS	WIND FLOW DEGREES (L.)	WIND DATA KNOTS	INDEX OF REFRACTION
4550.0	109.5	-58.2	274.7	571.2	246.0	67.9	1.000061
4460.0	105.5	-59.0	269.1	570.2	246.2	64.3	1.000060
4450.0	101.5	-59.7	263.8	569.1	240.5	60.7	1.000059
4505.0	107.6	-60.5	259.3	568.1	240.2	58.2	1.000058
4550.0	103.9	-61.3	255.6	567.1	245.6	55.8	1.000056
4600.0	100.2	-62.1	247.8	566.0	245.0	54.9	1.000055
4650.0	94.5	-63.0	242.8	564.8	245.7	55.0	1.000054
4700.0	140.9	-63.9	237.9	563.5	245.9	54.9	1.000053
4750.0	139.4	-64.6	233.1	562.3	240.0	54.4	1.000052
4800.0	136.0	-65.7	228.5	561.1	247.4	54.0	1.000051
4850.0	132.7	-66.3	223.4	560.3	243.3	51.9	1.000050
4900.0	129.4	-66.3	217.9	559.3	243.0	49.5	1.000049
4950.0	126.2	-66.3	212.5	558.3	250.4	47.3	1.000047
5000.0	123.1	-66.3	207.3	557.3	251.4	45.8	1.000046
5050.0	120.0	-67.9	203.7	556.1	252.0	44.2	1.000045
5100.0	117.0	-69.6	200.3	555.8	253.4	44.4	1.000045
5150.0	114.1	-71.3	196.9	555.3	204.3	44.6	1.000044
5200.0	111.2	-71.5	192.4	555.2	205.3	44.7	1.000043
5250.0	108.4	-69.7	185.7	555.0	201.4	44.7	1.000041
5300.0	105.7	-67.9	179.4	553.1	207.3	44.4	1.000040
5350.0	102.1	-68.1	175.4	550.9	208.7	43.8	1.000039
5400.0	100.5	-66.0	169.0	549.8	209.9	43.1	1.000038
5450.0	98.0	-65.7	164.9	548.2	208.1	41.9	1.000037
5500.0	95.6	-65.2	160.3	547.7	209.4	40.6	1.000036
5550.0	93.3	-64.6	156.0	546.3	209.0	38.2	1.000035
5600.0	91.0	-64.4	151.9	545.9	208.7	35.6	1.000034
5650.0	88.8	-64.0	147.9	545.4	207.6	32.6	1.000033
5700.0	86.6	-63.5	144.0	544.0	209.2	28.9	1.000032
5750.0	84.5	-63.1	140.2	544.0	204.4	25.2	1.000031
5800.0	82.4	-62.7	136.5	545.2	201.4	21.2	1.000030
5850.0	80.4	-62.7	133.1	546.2	243.2	17.2	1.000027
5900.0	78.5	-63.6	130.5	546.9	240.0	14.4	1.000029
5950.0	76.5	-64.9	127.6	546.6	229.9	12.0	1.000028
6000.0	74.6	-65.6	125.3	546.1	220.1	11.1	1.000027
6050.0	72.3	-66.5	122.8	545.9	215.0	11.2	1.000026
6100.0	71.0	-67.5	120.5	546.0	210.0	11.4	1.000027
6150.0	69.3	-68.1	117.7	547.9	213.2	12.7	1.000026
6200.0	67.5	-68.0	114.7	545.0	225.5	10.5	1.000026
6250.0	65.9	-67.9	111.8	549.1	222.4	16.9	1.000025
6300.0	64.2	-67.3	109.0	553.5	239.8	18.4	1.000024

STATION ALTITUDE 5997.30 FEET MSL
1A UCT. 79 0845 HRS MST
ASSEMBLY 1.0. 55

UPPER AIR DATA
291000Z
5 in R
TABLE 7 (CONT)

STATION ALTITUDE	PRESSURE INCHES MSL PRESS	TEMPERATURE AIR DEGREES MILLIBARS	DEWPOINT DEGREES CLINICHADE	REL.HUM. PERCENT	DENSITY IN/CUBIC METER	REFRACT. KNOTS	WIND DIRECTION DEGREES (10) WIND SPEED KNOTS (10)	WIND DATA SPEED KNOTS (10)	INDEX OF REFRACTION
6356.0	020.7	-66.5					105.6	245.4	20.7
6400.0	01.1	-64.9					102.2	249.0	20.6
6425.0	59.6	-63.4					99.0	254.2	1.000023
6450.0	58.2	-61.8					96.9	256.3	1.000022
6475.0	56.8	-61.1					93.9	257.9	19.0
6500.0	55.4	-61.1					92.2	260.7	16.8
6525.0	54.1	-61.1					91.0	264.4	14.6
6550.0	52.8	-61.1					88.0	267.5	12.9
6575.0	51.5	-61.1					89.7	267.5	11.1
6600.0	50.2	-51.1					84.6	260.0	1.000019
6625.0	49.1	-50.7					84.6	260.1	1.000019
6650.0	47.9	-50.1					82.5	263.1	1.000018
6675.0	46.8	-50.0					80.4	267.9	7.1
6700.0	45.6	-50.0					77.9	266.9	6.9
6725.0	44.5	-50.0					75.1	269.3	1.000017
6750.0	42.5	-57.4					69.5	264.7	6.7
6775.0	41.5	-56.9					67.3	261.7	1.000017
6800.0	40.5	-56.5					65.3	267.1	7.3
6825.0	39.5	-58.5					62.3	274.6	8.3
6850.0	42.0	-58.0					70.4	279.9	10.3
6875.0	41.0	-57.4					68.5	283.0	11.9
6900.0	40.0	-56.9					66.5	285.4	13.6
6925.0	39.0	-56.5					65.1	289.2	14.9
6950.0	38.0	-55.5					63.4	274.4	15.4
6975.0	37.0	-55.0					61.7	271.3	16.1
7000.0	36.0	-55.0					60.1	275.0	16.2
7025.0	35.0	-54.7					57.5	270.5	16.7
7050.0	34.3	-54.5					56.0	276.3	16.7
7075.0	33.5	-54.5					55.0	270.1	1.000013
7100.0	32.9	-54.4					53.2	247.5	17.7
7125.0	32.0	-54.5					51.6	243.6	19.2
7150.0	31.2	-54.5					49.7	245.7	1.000012
7175.0	30.3	-54.5					48.0	242.6	20.8
7200.0	29.5	-54.5					50.4	240.5	22.5
7225.0	28.6	-54.7					52.1	242.9	23.4
7250.0	27.7	-54.7					50.9	240.3	24.2
7275.0	26.9	-54.7					49.7	242.5	25.1
7300.0	26.1	-54.5					48.0	251.0	23.3
7325.0	25.2	-54.5					46.3	254.0	20.9
7350.0	24.3	-54.5					45.2	258.0	18.5
7375.0	23.5	-54.5					43.2	262.5	14.3
7400.0	22.7	-54.5					41.1	264.1	9.6
7425.0	21.8	-54.1					39.1	264.1	5.6
7450.0	21.0	-54.1					37.1	264.1	4.1
7475.0	20.1	-54.7					35.1	264.0	3.3
7500.0	19.2	-54.7					33.1	260.9	2.9
7525.0	18.3	-54.3					31.2	251.4	1.000009
7550.0	17.5	-54.3					29.3	251.4	1.000009
7575.0	16.6	-54.3					27.4	251.4	1.000009
7600.0	15.7	-54.4					25.5	251.4	1.000009
7625.0	14.8	-54.4					23.6	251.4	1.000009
7650.0	13.9	-54.4					21.7	251.4	1.000009
7675.0	13.0	-54.4					20.0	251.4	1.000009
7700.0	12.1	-54.4					18.1	251.4	1.000009
7725.0	11.2	-54.4					16.2	251.4	1.000009
7750.0	10.3	-54.4					14.3	251.4	1.000009
7775.0	9.4	-54.4					12.4	251.4	1.000009
7800.0	8.5	-54.4					10.5	251.4	1.000009
7825.0	7.6	-54.4					8.6	251.4	1.000009
7850.0	6.7	-54.4					6.7	251.4	1.000009
7875.0	5.8	-54.4					4.8	251.4	1.000009
7900.0	5.0	-54.4					3.0	251.4	1.000009
7925.0	4.1	-54.4					1.1	251.4	1.000009
7950.0	3.2	-54.4					0.0	251.4	1.000009
7975.0	2.3	-54.4						251.4	1.000009
8000.0	1.4	-54.4						251.4	1.000009
8025.0	0.5	-54.4						251.4	1.000009
8050.0	0.0	-54.4						251.4	1.000009
8075.0	0.0	-54.4						251.4	1.000009
8100.0	0.0	-54.4						251.4	1.000009
8125.0	0.0	-54.4						251.4	1.000009
8150.0	0.0	-54.4						251.4	1.000009
8175.0	0.0	-54.4						251.4	1.000009
8200.0	0.0	-54.4						251.4	1.000009
8225.0	0.0	-54.4						251.4	1.000009
8250.0	0.0	-54.4						251.4	1.000009
8275.0	0.0	-54.4						251.4	1.000009
8300.0	0.0	-54.4						251.4	1.000009
8325.0	0.0	-54.4						251.4	1.000009
8350.0	0.0	-54.4						251.4	1.000009
8375.0	0.0	-54.4						251.4	1.000009
8400.0	0.0	-54.4						251.4	1.000009
8425.0	0.0	-54.4						251.4	1.000009
8450.0	0.0	-54.4						251.4	1.000009
8475.0	0.0	-54.4						251.4	1.000009
8500.0	0.0	-54.4						251.4	1.000009
8525.0	0.0	-54.4						251.4	1.000009
8550.0	0.0	-54.4						251.4	1.000009
8575.0	0.0	-54.4						251.4	1.000009
8600.0	0.0	-54.4						251.4	1.000009
8625.0	0.0	-54.4						251.4	1.000009
8650.0	0.0	-54.4						251.4	1.000009
8675.0	0.0	-54.4						251.4	1.000009
8700.0	0.0	-54.4						251.4	1.000009
8725.0	0.0	-54.4						251.4	1.000009
8750.0	0.0	-54.4						251.4	1.000009
8775.0	0.0	-54.4						251.4	1.000009
8800.0	0.0	-54.4						251.4	1.000009
8825.0	0.0	-54.4						251.4	1.000009
8850.0	0.0	-54.4						251.4	1.000009
8875.0	0.0	-54.4						251.4	1.000009
8900.0	0.0	-54.4						251.4	1.000009
8925.0	0.0	-54.4						251.4	1.000009
8950.0	0.0	-54.4						251.4	1.000009
8975.0	0.0	-54.4						251.4	1.000009
9000.0	0.0	-54.4						251.4	1.000009
9025.0	0.0	-54.4						251.4	1.000009
9050.0	0.0	-54.4						251.4	1.000009
9075.0	0.0	-54.4						251.4	1.000009
9100.0	0.0	-54.4						251.4	1.000009
9125.0	0.0	-54.4						251.4	1.000009
9150.0	0.0	-54.4						251.4	1.000009
9175.0	0.0	-54.4						251.4	1.000009
9200.0	0.0	-54.4						251.4	1.000009
9225.0	0.0	-54.4						251.4	1.000009
9250.0	0.0	-54.4						251.4	1.000009
9275.0	0.0	-54.4						251.4	1.000009
9300.0	0.0	-54.4						251.4	1.000009
9325.0	0.0	-54.4						251.4	1.000009
9350.0	0.0	-54.4						251.4	1.000009
9375.0	0.0	-54.4						251.4	1.000009
9400.0	0.0	-54.4						251.4	1.000009
9425.0	0.0	-54.4						251.4	1.000009
9450.0	0.0	-54.4						251.4	1.000009
9475.0	0.0	-54.4						251.4	1.000009
9500.0	0.0	-54.4						251.4	1.000009
9525.0	0.0	-54.4						251.4	1.000009
9550.0	0.0	-54.4						251.4	1.000009
9575.0	0.0	-54.4						251.4	1.000009
9600.0	0.0	-54.4						251.4	1.000009
9625.0	0.0	-54.4						251.4	1.000009
9650.0	0.0	-54.4						251.4	1.000009
9675.0	0.0	-54.4						251.4	1.000009
9700.0	0.0	-54.4						251.4	1.000009
9725.0	0.0	-54.4						251.4	1.000009
9750.0	0.0	-54.4						251.4	1.000009
9775.0	0.0	-54.4						251.4	1.000009
9800.0	0.0	-54.4						251.4	1.000009
9825.0	0.0	-54.							

STATION ALTITUDE 3997.30 FEET MSL
18 OCT. 19 0845 hrs MST
Aeronautical Observatory

UPPER AIR DATA
2910000000
S IN R

GEODETIC COORDINATES
32.46034 LAT DEG.
106.42307 LON DEG.

TABLE 7 (CONT)

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CELSIUS	REL.HUM. PERCENT	WIND SPEED KNOTS	WIND DATA DIRECT (W.) DEGREES (TR.)	INDEX OR REFRACTION
3997.0	1010.0	-53.1	38.1	577.0	;	1.000008
3996.0	1010.3	-53.0	37.2	576.0	;	1.000008

STATION ALTITUDE 3997.30 FEET MSL
 18 OCT. 79 0845 HRS MST
 ASCLATION NO. 555

MANDATORY LEVELS
 2410000355
 S W R

GEODDATIC COORDINATES
 32°48.034 LAT DEG
 106°42.307 LON DEG

TABLE 8

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DE-POINT PERCENT	REL. HUM. PERCENT	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS
850.0	4940.	19.9	-1.4	24.	269.3	3.5
800.0	6034.	15.7	-3.3	27.	269.4	17.8
750.0	8420.	11.1	-5.0	30.	249.5	19.5
700.0	10293.	6.9	-15.7	16.	252.3	17.3
650.0	12281.	4.0	-19.7	10.	255.4	21.9
600.0	14320.	-1.3	-14.4	30.	246.9	20.5
550.0	16447.	-6.6	-19.0	35.	231.7	30.6
500.0	19063.	-10.9	-29.9	19.	222.1	33.6
450.0	21701.	-16.0	-28.0	32.	237.0	38.0
400.0	24572.	-23.2	-28.9	39.	243.6	44.1
350.0	27734.	-30.4	-34.6	09.	226.6	51.2
300.0	31271.	-38.6	-42.6	06.	245.0	54.1
250.0	35280.	-50.1			247.1	50.2
200.0	39974.	-56.7			241.0	71.6
175.0	42738.	-57.2			245.0	70.9
150.0	45901.	-62.1			245.6	54.9
125.0	49958.	-66.3			250.7	48.8
100.0	53935.	-66.0			259.9	43.0
85.0	58417.	-52.9			247.3	10.6
70.0	61082.	-63.1			244.0	12.0
50.0	64135.	-63.8			252.8	20.3
40.0	67645.	-61.1			252.0	6.2
30.0	72445.	-56.1			244.2	15.1
25.0	76404.	-54.9			253.3	22.0
	82220.	-53.5				

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.